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Calibration of Test Systems for Measuring Power Losses of Transformers *Describes the development and construction of a calibration system used for the accuracy verification and measurement of transformer losses.* 1985: 103 p.; ill.
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Computer Data Base System for Indexing Research Papers 1982: 106 p.; ill.
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FORTRAN Version of the Quantitative Energy-Dispersive Electron Beam X-ray Analysis Program FRAME C *Presents a FORTRAN listing of the quantitative electron microprobe analysis routine, FRAME C. Included are a description of the program, a documented listing, and three examples of program output.* 1984: 39 p.
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Near-Field Array of Yagi-Uda Antennas for Electromagnetic Susceptibility Testing *Describes the testing of electronic equipment using a seven element array of Yagi-Uda antennas at 500 MHz.* 1985: 82 p.; ill.
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Possible Estimation Methodologies for Electromagnetic Field Distributions in Complex Environments *Describes three methods of measuring and characterizing complicated multiple-source, multiple-frequency electromagnetic environments which are currently under investigation.* 1985: 50 p.; ill.
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Radio-Frequency Power Delivery System: Procedures for Error Analysis and Self-Calibration *Describes the use of a standard gain horn antenna to establish electromagnetic fields in an anechoic chamber. The chamber is used to measure the power incident upon and reflected from the horn using a mathematical equation.* 1985: 24 p.; ill.
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Small Aperture Analysis of the Dual TEM Cell and an Investigation of Test Object Scattering in a Single TEM Cell *Small aperture theory is used to investigate the dual TEM (transverse electromagnetic) cell. Analyzing coupling through an empty versus a loaded aperture leads to a model of dual TEM cell shielding effectiveness measurements. Small obstacle scattering yields results for both the field perturbation and the change in a cell's transmission line characteristics due to the presence of a test object in a TEM cell.* 1984: 59 p.; ill.
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Survey of Measurement Needs in the Chemical and Related Industries *Presents the results of a survey and describes a data base. Survey respondents identified: 133 measurement problems of which 106 are defined in detail; and 27 measurement needs where no current measurement capability exists or is known. The data base includes instrument technical specifications, service conditions, calibration and maintenance requirements, and marketing information.* 1985: 101 p.
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Theory of Mutual Impedances and Multiple Reflections in an N-Element Array Environment *Describes the complex electromagnetic environment of an N-element array using a generalized theoretical approach. The theory reveals the element to element interactions and multiple reflections within the array.* 1985: 34 p.; ill.
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Thermodynamic Surface for the Critical Region of Ethylene 1984: 96 p.; ill. and errata sheet.
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Transient Analysis of Electromagnetic Reflection From Dispersive Materials *Presents theoretical expressions describing the transient and steady state temporal evolution of an impulsive, TE-polarized, plane wave reflected into vacuum from any of a variety of frequency-dispersive material surfaces.* 1985: 69 p.; ill.
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Trapped Ions and Laser Cooling: Selected Publications of the Ion Storage Group of the Time and Frequency Division, NBS, Boulder, Colorado *Contains 28 papers which were originally printed in various scientific journals between 1978 and 1985. The primary goal of this research was the development of techniques necessary for achieving better time and frequency standards.* 1985: 191 p.; ill.
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Urea-Formaldehyde Foam Insulations: A Review of Their Properties and Performance *Presents a review of the properties and performances of urea-formaldehyde foams used to insulate buildings. Also discusses and lists the factors affecting the performance of urea-formaldehyde foams.* 1985: 70 p.
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VOR Calibration Services *Describes the NBS standard for support of Very High Frequency Omnidirectional Range air navigation aids. The standard consists of two instruments: a digital waveform generator and a standard phasemeter.* 1985: 180 p.; ill.
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Weathering Performance of Cover Materials for Flat Plate Solar Collectors *Describes weathering studies on the performance and durability of cover plate materials for flat plate solar collectors used in solar heating and cooling systems.* 1982: 79 p.; ill.
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